REMARKS

Applicant recognizes with appreciation that Examiner has indicated that Claims 29 – 46, 50 and 52 are allowable if rewritten in independent form including all of the limitations of the case claims and any intervening claims.

In this Amendment, Applicant has cancelled Claims 3, 11, 15, 23 and 51 without prejudice or disclaimer, and amended Claims 1 and 25. Claim 1 has been amended to specify different embodiments of the present invention and overcome the rejection. Claim 25 has been amended to proper dependent form. In addition, the specification has been amended to correct clerical errors by replacing "defraction" with "diffraction." It is respectfully submitted that no new matter has been introduced by the amended claims and specification. All claims are now present for examination and favorable reconsideration is respectfully requested in view of the preceding amendments and the following comments.

REJECTIONS UNDER 35 U.S.C. § 102:

Claims 1 – 8, 15, 18 – 20, 27 – 28, 47, 49 and 51 have been rejected under 35 U.S.C. § 102 (b) as allegedly being anticipated by Yamada et al. (US 6,332,361) or Siebert et al. (WO 01/71338).

Applicant traverses the rejection and respectfully submits that the rejection is incorrect and the present-claimed invention is not anticipated by the cited references. Siebert et al. (WO 01/71338) discloses in Fig. 3 a system wherein by means of a transmitter Tx several parallel beams are generated. Each beam is reflected to a different area of the interface between the weld and the rest of a test piece and received by means of a receiver Rx. In other words, each beam is reflected on a different zone of the surface of the weld.

Siebert et al. (WO 01/71338) discloses in Fig. 4 a system wherein by means of a

transmitter Tx several beams are generated. These beams are focused towards a receiver Rx. Furthermore, each beam is reflected to a different portion of the surface of the weld and received by means of the receiver Rx.

After the reflection of a beam is received based on each beam, it may be concluded that a flaw is present, if any, at a certain location of the weld. The extension of a flaw may be obtained by combining the information of different received beams.

US 6,332,361 discloses in Fig. 1 a system wherein by means of a probe 22a (a combined receiver and transmitter) an ultrasonic beam is submitted to the bonding interface via the metal pipe 12. A reflection of the beam at the edge of the bonding interface is received by the same probe 22a. Furthermore, by means of a probe 22a, a beam is transmitted to the same portion of the bonding interface through a pipeline 14. A reflection of this beam on the bonding interface 16 is received by the same probe 22b (see col. 12, lines 23 – vol. 13, line 5).

The procedure of measuring the reflected echo height in the second measuring step (the step wherein the probe 22b is used) is substantially the same as that of the first measuring step (the step wherein the probe 22a is used), expect that the ultrasonic wave is incident in a direction opposite to that of the first measuring step. Hence, the angle of incidents of the beam transmitted by the probe 22a to the bonding interface relative to a surface of this portion of the bonding interface is the same as the angle of incidents transmitted by the probe 22b.

In a next step, fault discriminating will be carried out. In this step, the difference in the reflected echo heights is calculated. This difference between each measurement corresponds to a size of the step fault, and therefore, through calculation of the differences in the reflected echo heights, presence of a step and the edge of the bonding interface 16, a projection direction of the step fault along with its size can be

discriminated. Therefore, the method is particularly useful for elevating bonding properties of metallic pipes at the edge of the bonding interface 16.

According to a special feature of the present invention, at least a first beam and a second beam are transmitted to a certain area of the interface between the weld and a first pipeline. In other words, the first beam is transmitted to a certain area/zone of the surface of the weld.

The first beam is directed in the step (a) such that its direction does deviate from a normal of the surface of the weld in this area.

In step (b), a reflection of the first beam is received in a direction that does deviate from the direction in which the first beam would reflect according to the rule that the angle of incidence is equal to the angle of reflection (this is not disclosed in Siebert et al. (WO 01/71338)). This means that, if the first beam is received, this represents a diffraction of the first beam on the interface of the weld. Please note that a diffraction means that the first beam is reflected in several directions as opposed to one specific direction. According to an insight of the invention, this is a first indication of a flaw being present in this area (page 3, lines 6 – 14 of the application; page 10 lines 9 – 19).

In step (c), a second beam is directed to the same area as the first beam (this is not disclosed by Siebert et al. (WO 01/71338)). The second beam is directed in a direction such that it at least substantially does not deviate from the normal of the surface (this is not known from Siebert et al. (WO 01/71338) or US 6,332,361).

In step (d), a reflection of the second beam is detected in a direction that at least substantially does not deviate from the direction in which the second beam would reflect on a surface of the interface in the area (this is not known from US 6,332,361).

Owing to the second beam being incident at least substantially perpendicular on the interface while a reflection of the second beam is measured in the expected direction of the surface of the weld in the area a flaw in this area can be very well detected by means of the received reflected second beam (page 4, lines 1 – 8; page 12,lines 11 – 17).

In the step (e), both measuring results are combined for checking the weld (this is not known from Siebert et al. (WO 01/71338)).

Therefore, a combination of these aspects of the invention are neither disclosed nor suggested by Yamada et al. (US 6,332,361) or Siebert et al. (WO 01/71338).

Therefore, the newly presented claims are not anticipated by cited references and the rejection under 35 U.S.C. § 102 (b) has been overcome. Accordingly, withdrawal of the rejection under 35 U.S.C. § 102 (b) is respectfully requested.

Having overcome all outstanding grounds of rejection, the application is now in condition for allowance, and prompt action toward that end is respectfully solicited.

Respectfully submitted,

JACOBSON HOLMAN PLLC

By_____
John C. Holman
Registration No. 22,769

Date: February 12, 2010
(202) 638-6666
400 Seventh Street, N.W.
Washington, D.C. 20004
Atty. Dkt. No.: P71263US0